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U.S. ARMY TOXIC AND HAZARDOUS MATERIALS AGENCY  
CHAIN-OF-CUSTODY PROCEDURES

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Prepared for

Commander

U.S. Army Toxic and Hazardous Materials Agency  
Aberdeen Proving Ground, Maryland 21010-5401

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U.S. ARMY TOXIC AND HAZARDOUS MATERIALS AGENCY

CHAIN-OF-CUSTODY PROCEDURES

The material presented here briefly summarizes the major aspects of chain of custody. Reference should be made to NEIC Policies and Procedures (EPA-300/9-78-001-R) for more information.

1.0. Introduction

As in any other activity that may be used to support litigation, government agencies must be able to provide the chain of possession and custody of any samples which are offered for evidence or which form the basis of analytical test results introduced into evidence in any legal proceeding. It is imperative that written procedures be available and followed whenever evidence samples are collected, transferred, stored, analyzed, or destroyed. The primary objective of these procedures is to create an accurate written record which can be used to trace the possession and handling of the sample from the moment of its collection through analysis and its introduction as evidence.

A sample is in someone's "custody" if:

- it is in one's actual physical possession;
- it is in one's view, after being in one's physical possession;
- it is in one's physical possession and then locked up so that no one can tamper with it; or
- it is kept in a secured area, restricted to authorized personnel only.

2.0. Survey Planning and Preparation

The evidence-gathering portion of a survey should be characterized by the minimum number of samples required to give a fair representation of the sampled area or matrix. To the greatest extent possible, the number of samples and sampling locations should be determined prior to the survey.



All survey participants will receive a copy of the survey study plan and will be knowledgeable of its contents prior to the survey. A pre-survey briefing will be held to re-appraise all participants of the survey objectives, sample locations, and chain-of-custody procedures. After all chain-of-custody samples are collected, a debriefing will be held in the field to determine adherence to custody procedures and whether additional evidentiary samples are required.

### 3.0. Sample Collection, Handling, and Identification

It is important that a minimum number of persons be involved in sample collection and handling. Standard field sampling techniques, such as those published by the U.S. EPA, should be used for sample collection, preservation, and handling. Field records should be completed at the time the sample is collected and should be signed or initialed, including the date and time, by the sample collector(s). Field records should contain the following information:

- unique sample or log number;
- date and time;
- source of sample (including name, location, and sample type);
- preservative used;
- analyses required;
- name of collector(s);
- pertinent field data (pH, temperature, depth to water, etc.); and
- serial number of custody seals and transportation cases.

Each sample is identified by affixing a pressure sensitive gummed label or standardized tag on the container(s). This label should contain the sample identification number, date and time of sample collection, source of sample, preservative used, and the collector's initials.

Analyses required should be identified. Where a label is not available, the same information should be affixed to the sample container with an indelible, water-proof marking pen.

The sample container should then be placed in a transportation case along with the chain-of-custody record form, pertinent field records, and analyses request form as needed. The transportation case should then be sealed and labeled. All records should be filled out legibly in pen.

The use of the locked and sealed chests will eliminate the need for close control of individual sample containers. However, there will undoubtedly be occasions when the use of a chest will be inconvenient. On those occasions, the sampler should place a custody seal around the cap of the individual sample container which would indicate tempering if removed.

When samples are composited over a time period, unsealed samples can be transferred from one crew to the next crew. A list of samples will be made by the transferring crew and signed for by a member of the receiving crew. They will either transfer the samples to another crew or deliver them to laboratory personnel who will then acknowledge receipt in a similar manner.

Color slides or photographs taken of the sample location and of any visible pollution are recommended to facilitate identification and later recollection by the sampler. A photograph log should be made at the time the photo is taken so that this information can be written later on the back of the photo or in the margin of the slide. This log should include the signature of the photographer, time, date, site location, and brief description of the subject of the photo. Photographs and written records, which may be used as evidence, should be handled in such a way that chain of custody can be established.

#### 4.0. Transfer of Custody and Shipment

When transferring the possession of the samples, the transferee must sign and record the date and time on the chain-of-custody record. Custody



transfers, if made to a sample custodian in the field, should account for each individual sample, although samples may be transferred as a group. Every person who takes custody must fill in the appropriate section of the Chain-of-Custody Record. To prevent undue proliferation of custody records, the number of custodians in the chain of possession should be as few as possible.

The field custodian, or field inspector if a custodian has not been assigned, is responsible for properly packaging and dispatching samples to the appropriate laboratory for analysis. This responsibility includes filling out, dating, and signing the appropriate portions of the Chain-of-Custody Record. A Chain-of-Custody Record format, containing the necessary procedural elements, is shown in Figure 1.

All packages sent to the laboratory should be accompanied by the Chain of Custody Record and other pertinent forms. A copy of these forms should be retained by the originating office (either carbon or photo copy).

Mailed packages can be registered with return receipt requested. If packages are sent by common carrier, receipts should be retained as part of the permanent chain-of-custody documentation.

Samples to be shipped must be so packed as not to break and the package so sealed or locked that any evidence of tempering may be readily detected. Custody seals are narrow strips of adhesive paper used to demonstrate that no tempering has occurred. They are intended for use on a sample transport container which is not secured by a padlock. They are not intended for routine use on individual sample containers.

#### 5.0. Laboratory Custody Procedures

Chain-of-custody procedures are also necessary in the laboratory from the time of sample receipt to the time the sample is discarded. The following procedures are recommended for the laboratory:

[illegible]

Figure 1. Sample Chain of Custody Record 8-0921



- A specific person shall be designated custodian and an alternate designated to act as custodian in the custodian's absence. All incoming samples shall be received by the custodian, who shall indicate receipt by signing the accompanying custody forms and who shall retain the signed forms as permanent records.
- The sample custodian shall maintain a permanent log book to record, for each sample, the person delivering the sample, the person receiving the sample, the date and time received, the source of the sample, the sample identification or log number, how the sample was transmitted to the laboratory, and the condition received (sealed, unsealed, broken container, or other pertinent remarks). A standardized format should be established for log book entries.
- A clean, dry, isolation room, building, and/or refrigerated space that can be securely locked from the outside shall be designated as a "Sample Storage Security Area."
- The custodian shall ensure that heat-sensitive, light-sensitive, radioactive, or other samples having unusual physical characteristics or requiring special handling, are properly stored and maintained prior to analysis.
- Distribution of samples to individuals who are responsible for the laboratory performing the analysis shall be made only by the custodian.
- Laboratory personnel are responsible for the care and custody of the sample once it is received by them and shall be prepared to testify that the sample was in their possession and view or secured in the laboratory at all times from the moment it was received from the custodian until the time that the analyses were completed.
- Once the sample analyses are completed, the unused portion of the sample, together with all identifying labels, must be returned to the custodian. The returned tagged sample should be retained in the

custody room until permission to destroy the sample is received by the custodian.

- Samples shall be destroyed only upon the order of the project manager, in consultation with previously designated USATHAMA officials, or when it is certain that the information is no longer required or the samples have deteriorated. The same procedure is true for tags and laboratory records.

#### 6.0. Questions/Problems Concerning Custody Records

If a discrepancy between sample tag numbers and custody record listing is found, the person receiving custody should document this and properly store the samples. The samples should not be analyzed until the problem is resolved.

The responsible person receiving custody should attempt to resolve the problem by checking all available information (other markings on sample container, type of sample, etc.). He should then document the situation on the custody record and in his project log book and notify the project manager and quality control coordinator by the fastest available means, followed by written notification.

Changes may be written in the "Remarks" section of the custody record and should be initialed and dated. A copy of this record should accompany the written notification to the project manager and quality control coordinator.

#### 7.0. Evidentiary Considerations

Reducing chain-of-custody procedures as well as the various promulgated laboratory analytical procedures to writing will facilitate the admission of evidence under Rule 803(6) of the Federal Rules of Evidence (PL 93-575). Under this statute, written records of regularly conducted business activities may be introduced into evidence as an exception to the



"Hearsay Rule" without the testimony of the person(s) who made the record. Although preferable, it is not always possible to have the individuals who collected, kept, and analyzed samples testify in court. In addition, if the opposing party does not intend to contest the integrity of the sample or testing evidence, admission under Rule 803(6) can save a great deal of trial time. For these reasons, it is important that the procedures followed in the collection and analyses of evidentiary samples be standardized and described in an instruction manual which, if need be, can be offered as evidence of the "regularly conducted business activity" followed by the laboratory or office generating any given record.

If evidence is to be used in criminal actions, special conditions apply to use of the "Hearsay Rule." It is arguable that those portions of a sampling and analysis report dealing with matters other than sampling and analysis results come within this exception. In criminal actions, records and reports of matter observed by field investigators may not be admissible and the evidence may still have to be presented in the form of oral testimony by the person(s) who made the record or report, even though the materials come within the definition of business records. In a criminal proceeding, the opposing counsel may be able to obtain copies of reports prepared by witnesses, even if the witness does not refer to the records while testifying, and if obtained, the records may be used for cross-examination purposes.

Admission of records is not automatic under either of these sections. The business records section authorizes admission "unless the source of information or the method or circumstances or preparation indicate lack of trustworthiness," and the caveat under the public records exception reads "unless the source of information or other circumstances indicate lack of trustworthiness."